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10/586,248	07/17/2006	Jan Thorsten Weber	P71355US0	1811

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EXAMINER	
CHEN, YUAN L	

ART UNIT	PAPER NUMBER
4193	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,248	WEBER ET AL.	
	Examiner	Art Unit	
	Yuan L. Chen	4193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 -24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/10/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: "rings 6" in page 5 lines 24 and 29 should be changed to –disks 6— and "rings 9" in page 5 line 27 should be changed to –disks 6--.

Appropriate correction is required.

Claim Objections

2. Claims 8 – 10, 22 and 24 are objected to as not being clearly reciting which claim is reflecting to (see MPEP 608.01(n)). The suggestions follow: "the preceding claim" in Claim 8 should be changed to –claim 7--, "the preceding claim" in Claim 9 should be changed to –claim 8--, "the preceding claim" in Claim 10 should be changed to –claim 9--, "the preceding claim" in Claim 22 should be changed to –claim 21--, and "the preceding claim" in Claim 24 should be changed to –claim 23--.

Claim 12 is objected to because of the following informalities: "claim 10" should be changed to –claim 11--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 – 7 and 11 - 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Busshoff et al. (Pub. No.: US 2003/0157285).

With respect to Claim 1, Busshoff et al. disclose in Fig. 1 and [0036]: cylinder (10) for receptacle of a printing form, which (10) is rotatable about its principal symmetry axis (center of the circle in cross sectional view) during a printing operation and which comprises at least one first sleeve (12), which contains carbon fiber reinforced plastic ([0036] lines 4 and 10), characterized in that the majority of the carbon fibers in the plastic are aligned essentially parallel ([0047] line 12) to the principal symmetry axis of the cylinder (10).

With respect to Claim 2, Busshoff et al. disclose in Fig. 1 and [0036]: cylinder according to claim 1, characterized in that the angular deviation between the principal symmetry axis of the cylinder (10) and the majority of the carbon fibers is less than 10^{o} (([0047] line 12).

With respect to Claim 3, Busshoff et al. disclose in Fig. 1 and [0036]: cylinder according to claim 1, characterized in that the angular deviation between the principal symmetry axis of the cylinder (10) and the majority of the carbon fibers is less than 5^{o} (([0047] line 12).

With respect to Claim 4, Busshoff et al. disclose in Fig. 1 and [0036]: cylinder according to claim 1, characterized in that the angular deviation between the principal

symmetry axis of the cylinder (10) and the majority of the carbon fibers is less than 2° (([0047] line 12).

With respect to Claim 5, Busshoff et al. disclose in Fig. 1 and [0044]: cylinder according to claim 1, characterized in that the first sleeve (12) contains pultroded ([0044] line 2) carbon fiber reinforced plastic.

With respect to Claim 6, Busshoff et al. disclose in Fig. 1 and [0004]: cylinder according to claim 1, characterized in that devices (13) for absorbing the torsional stress, which are so arranged that they absorb at least a part of the torsional stress, which acts on the first sleeve particularly during a change in the speed.

With respect to Claim 7, Busshoff et al. disclose in Fig. 1 and [0040]: cylinder according to claim 1, characterized in that there is at least one more sleeve (13), which is produced with a different method, and/or an alternative material (lines 1- 3).

With respect to Claim 11, Busshoff et al. disclose in Fig. 1: cylinder according to claim 1, characterized in that at least one of the first sleeves (12) and the additional sleeves (13) are connected with each other, whereby the external circumferential area of one (12) of the two sleeves and the internal circumferential area of the other sleeve (13) are connected.

With respect to Claim 12, Busshoff et al. disclose in Fig. 2 and [0039]: cylinder according to claim 11, characterized in that the connection consists a substance (16) capable of adhesion ([0039] line 9).

With respect to Claim 13, Busshoff et al. disclose in Fig. 3 and [0047]: cylinder according to claim 1, characterized in that the length of the majority of the carbon fibers in the first sleeve (12) lies in the range between 90 and 100% (entire in [0048] line 3) of the length of the first sleeve (12).

With respect to Claim 14, Busshoff et al. disclose in Fig. 3 and [0047]: cylinder according to claim 1, characterized in that the length of the majority of the carbon fibers in the first sleeve (12) lies in the range between 95 and 100% (entire in [0048] line 3) of the length of the first sleeve (12).

With respect to Claim 15, Busshoff et al. disclose in Fig. 1 and [0044]: method for production of a cylinder (10) according to claim 1, characterized in that the first sleeve (12) is produced through the pultration method ([0044] line 2).

With respect to Claim 16, Busshoff et al. disclose in Fig. 3 and [0047]: method according to claim 1, characterized in that the first sleeve (12) is obtained from a long pipe (cylindrical support in line 4) produced through the pultration method ([0044] line 2), whereby the length ([0050] line 2) of the first sleeve (12) is defined by sawing or an alternative method of separation.

With respect to Claim 17, Busshoff et al. disclose in Fig. 3 and [0047]: method according to claim 1, characterized in that an additional sleeve (13) is mounted on the first sleeve (12) or the long pipe, by winding or spinning fibers (line 7) on the circumferential area of the first sleeve (12), which fibers are embedded in a plastic matrix (line 9).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 8 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Busshoff et al. in view of Sandstrom (Patent No.: US 6799510).

With respect to Claim 8, Busshoff et al. teach all the limitations of Claim 8, as applied to Claims 1 and 7 above, except that the additional sleeve is made of a plastic composite material.

However, in the same field of endeavor, Sandstrom discloses in Fig. 3 and column 4 lines 2 - 6): cylinder characterized in that the additional sleeve (2) is made of a plastic composite material.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Busshoff et al.'s cylinder by including a plastic composite material to the additional sleeve as taught by Sandstrom to add strength to the cylinder for a favorable characteristics to the printing.

The modification/combination meets all the limitation of Claim 8.

With respect to Claim 9, the modification/combination meets all the limitations of Claim 9 (Fig. 3 of Sandstrom): cylinder according to Claim 8, characterized in that plastic composite material of the additional sleeve (2) is a wound or spun CFRP or GFRP (column 3 lines 63 – 65).

With respect to Claim 10, the modification/combination meets all the limitations of Claim 10 ([0011] lines 2 – 6 of Busshoff et al.): cylinder according to Claim 9, characterized in that the additional sleeve (13) is made of metal (copper or copper alloy in line 4).

7. Claims 18 - 20 and 23 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Busshoff et al. in view of Ogita et al. (Patent No.: US 6074735).

With respect to Claim 18, Busshoff et al. teach all the limitations of Claim 18, as applied to Claims 1 and 6 above, except that the device comprises at least one ring.

However, in the same field of endeavor, Ogita et al. disclose in Fig. 1 and column 2 lines 61 – 64): cylinder according to claim 6, characterized in that the device for absorbing the torsional stress (column 1 line 26) comprises at least one ring (HF1).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Busshoff et al.'s cylinder by including a ring as taught by Ogita et al. to absorb the torsional stress as a more effective method for increasing the printing precision.

The modification/combination meets all the limitation of Claim 18.

With respect to Claim 19, the modification/combination meets all the limitations of Claim 19 (Fig. 1 of Ogita et al.): cylinder according to claim 1, characterized in that at least one ring (HF1) is arranged within the sleeve (10 – 13).

With respect to Claim 20, the modification/combination meets all the limitations of Claim 20 (Fig. 1 of Ogita et al.): cylinder according to claim 18, characterized in that at least one of the rings (HF2) contains carbon fibers (hf), which are aligned along the radial direction of the ring (HF2).

With respect to Claim 23, the modification/combination meets all the limitations of Claim 23 (column 3 lines 19 - 21 of Ogita et al.): cylinder according to claim 18, characterized in that at least one of the rings has a cross sectional area, which deviates from the rectangular form (various shapes).

With respect to Claim 24, the modification/combination meets all the limitations of Claim 24 (column 3 lines 19 - 21 of Ogita et al.): cylinder according to claim 23, characterized in that at least one of the rings has a u-shaped profile (various shapes other than a circle).

8. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Busshoff et al. in view of Ogita et al., as applied to Claim 18 above, and further in view of Giesy (Patent No.: 5213275).

With respect to Claim 21, the combination of Busshoff et al. and Ogita et al. teach all the limitations of Claim 21, as applied to Claim 18 above, except that at least one of the rings contains a metal.

However, Giessy discloses in Fig. 7 and column 4 lines 57 - 68: cylinder according to claim 18, characterized in that at least one of the rings (40) contains metal (line 67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the combination of Busshoff et al. and Ogita et al's cylinder by including a metal ring as taught by Giessy to absorb the torsional stress as a low cost method for increasing the printing precision.

The modification/combination meets all the limitation of Claim 21.

With respect to Claim 22, the modification/combination meets all the limitations of Claim 22 (in Fig. 7 and column 4 lines 57 – 68): cylinder according to Claim 21, characterized in that at least one of the rings (40) is metal ring (line 67), preferably a steel ring.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuan L. Chen whose telephone number is 571-270-3799. The examiner can normally be reached on Monday-Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taghi Arani can be reached on 571-272-3787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

yc

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4/21/2008